

REMARKS

This is in response to the non-final Office Action mailed May 26, 2004. Applicant respectfully traverses and request reconsideration.

Status of the claims

Claims 1-33 are pending, of which, claims 1-23 and 25-33 are rejected. Claim 24 is cancelled. Claim 1-21, 23 and 25-33 are rejected under 35 U.S.C. §102(e) based on U.S. Pat. No. 6,501,480 B1 "MacInnis". Claim 22 is rejected under 35 U.S.C. §112, first paragraph, allegedly based on a disclosure which is not enabling.

Rejections under 35 U.S.C. §102(e)

Claim 1-21, 23 and 25-33 are rejected under 35 U.S.C. §102(e) based on MacInnis. A claim is anticipated only if each and every element as arranged in the claim is found, either expressly or inherently described in a single reference.

MacInnis

MacInnis is directed to a graphics accelerator. (MacInnis, title.) A graphics display system generally includes a graphics display pipeline 80 and a video display pipeline 82. (MacInnis, col. 6, lines 19 through 21) In the graphics display system, the analog and digital video signals are processed in the video display pipeline while the graphics data is processed in a graphics display pipeline. (MacInnis, col. 43, line 65 through col. 44, line 1) After the processing of the video signals and the graphics data have been completed, they are blended together at a video compositor. (MacInnis, col. 44, lines 1 through 4) The video compositor receives video and graphics data from the video display pipeline and the graphics display pipeline, respectfully, and outputs to the video encoder. (MacInnis, col. 44, lines 4 through 6) In step 904 of FIG. 28, the video compositor blends with the scaled video window, using the alpha value, which is associated with the scaled video window. (MacInnis, col. 44, lines 17 through 21) The result of this blending operation is then blended with the output of the graphics display pipeline. (MacInnis, col. 44, lines 21 through 22)

In general, during blending of different layers of graphics and/or video, every layer [L1, L2, L3...L_n], where L1 is the back-most layer, each layer is blended with the composition of all the layers behind it, beginning with L2 being blended on top of L1. (MacInnis, col. 44, lines 31 through 35) As a result, the different layers of graphics and/or video layers are blended together. (MacInnis, col. 44, lines 31 through 33) After the processing of the video signals and the graphics data have been completed, they are blended together at a video compositor. (MacInnis, col. 44, lines 1 through 4) As such, MacInnis teaches blending the different layers in the video compositor, after the processing of the video signals and the graphics data have been completed.

Independent Claims 1, 12, 28, 33 and dependant claims 7 and 8

Applicants note that claim 1 recites, among other things, “a plurality of video graphics pipelines, wherein each of the plurality of video graphics pipelines is operable to process a corresponding image layer and wherein one of the plurality of video graphics pipelines processes a foremost image layer ...” (claim 1). Applicants submit that any of the Office Action’s cited references to MacInnis, disclose, teach or suggest, among other things, the use of “wherein each of the plurality of video graphics pipelines is operably to processing corresponding image layer.”

MacInnis as cited teaches blending different layers of graphics and/or video in a video compositor. (MacInnis, col. 44, lines 4 through 6, and lines 31 through 35.) As such, each and every layer of graphics and/or video is blended in a video compositor, rather than, “a plurality of video graphics pipelines, wherein each of the plurality of video graphics pipelines is operable to process the corresponding image layer and wherein one of the plurality of video graphics pipelines processes a foremost image layer ...” As a result, MacInnis at least fails to teach “a plurality of video graphics pipelines.” Further, MacInnis teaches “in the graphics display system, the analog and digital video signals are processed in the video display pipeline while the graphics data is processed in a graphics display pipeline” (MacInnis, col. 43, line 65 through col. 44, line 1) rather than, “a plurality of video graphics pipelines, wherein each of the plurality of video graphics pipelines is operable to process the corresponding image layer and wherein one of the plurality of video graphics pipelines processes a foremost image layer ...” (Claim 1). MacInnis at column 45, lines 10 through 11 is merely limited to “two or more of the upper layers may be blended together in parallel, rather than, “a plurality of video graphics pipelines, wherein each of

the plurality of video graphics pipelines is operable to processing corresponding image layer and wherein one of the plurality of video graphics pipelines processes a foremost image layer and the video graphics pipelines processes the corresponding image layers in parallel.” (Claim 1). Consequently, according to the explicit language of MacInnis, only “a graphics display pipeline” is described, rather than, “a plurality of video graphics pipelines.”

Applicants further note that the Office Action on pages 2 and 3 merely repeats the language of claim 1 and cites to MacInnis to allegedly show where some of the elements in the claims are taught. However, the Office Action rather than show where each and every element as arranged in the claims is taught by MacInnis, merely cites to, for example, “(analog and digital video), and past through video that is shown clearly in FIG. 4.” (Office Action, p. 3, lines 4 through 5) The Applicant further notes that the Office Action fails to show specifically where MacInnis shows “wherein each of the plurality of video graphics pipelines is operable to process the corresponding image layer,” let alone, “a plurality of video graphics pipelines, wherein each of the plurality of video graphics pipelines is operable to processing corresponding image layer and wherein one of the plurality of video graphics pipelines processes a foremost image layer and the video graphics pipelines processes the corresponding image layers in parallel.” (Claim 1).

Claims 2, 4, 13 and 15

Applicant submits that because claims 2 and 4 depend from claim 1 and claims 13 and 15 depend from claim 12, and as dependant claims therefrom, claims 2, 4, 13 and 15 are allowable for at least the reasons for which the parent claims are allowable. The reference to FIG. 5, step 140, which instead appears to be a blocked diagram where block 140 is “GFX Blender” merely describes a GFX Blender, rather than, “wherein the blending convention further comprises at least one of: AND/XOR blending and Alpha blending.” The Office Action fails to show where MacInnis teaches at least one of “AND/XOR blending and Alpha blending as arranged in the claims.” As such, the Office Action fails to show how MacInnis teaches each and every element of the claims. Therefore, the rejection as asserted should be withdrawn. Applicant further submits that dependant claims 2, 4, 13 and 15 are allowable in light of the presence of novel and non-obvious elements contained therein that are not otherwise present in the parent claim.

Claims 3 and 14

Applicant submits that because claim 3 depends from claim 2 and claims 14 depends from claim 12 through intermediate claim 13, and as dependant claims therefrom, the dependant claims are allowable at least for the reasons for which the parent claims and any intermediate claims are allowable. The MacInnis language cited in col. 5, lines 2 through 5, which states: in addition to each window having its own alpha blend factor, each pixel in the preferred embodiment has its own alpha value and qualities limited to each window having its own alpha blend factor and each pixel having its own alpha value, rather than “wherein the alpha blending further comprises a specified per pixel alpha value or a global alpha value, wherein in the alpha blending is performed using one of the plurality of pixel values.” Since MacInnis as shown above does not teach wherein each of the plurality of video graphics pipelines is operable to process a corresponding image layer” then MacInnis cannot perform alpha blending as further described in claim 1. Applicant further submits that dependant claims 3 and 14 are allowable in light of the presence of novel and non-obvious elements contained therein that are not otherwise present in the parent claims.

Dependant claims 5 and 16

Applicant submits that because claim 5 depends from claim 1 and claim 16 depends from claim 12, and as dependant claims therefrom, the dependant claims are allowable at least for the reasons for which the parent claims and any intermediate claims are allowable. Applicant further submits that dependant claims 5 and 16 are allowable in light of the presence of novel and non-obvious elements contained therein that are not otherwise present in the parent claims.

Claims 6, 17, 19, 20, and 30-32

Regarding claims 6, 17, 19, 20 and 30-32, FIG. 2, as cited, MacInnis merely shows a scaler, rather than, “blends at least two of the corresponding images.” Applicant submits that the dependant claims depend from the corresponding independent claims, and as dependant claims therefrom, the dependant claims are allowable at least for the reasons for which the parent claims and any intermediate claims are allowable. Applicant further submits that the dependant claims

are allowable in light of the presence of novel and non-obvious elements contained therein that are not otherwise present in the parent claims.

Claims 9, 10, 11, 18, 21, 23, 25 and 26

Applicant submits that the dependant claims depend from the corresponding independent claims, and as dependant claims therefrom, the dependant claims are allowable at least for the reasons for which the parent claims and any intermediate claims are allowable. Applicant further submits that the dependant claims are allowable in light of the presence of novel and non-obvious elements contained therein that are not otherwise present in the parent claims.

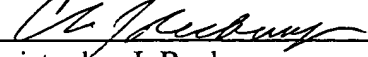
Claims 27 and 29

Regarding claim 27, as cited at col. 5, lines 3 through 9, MacInnis describes an alpha blending factor, but not a keyer, as claimed. Applicant submits that the dependant claims depend from the independent claims, and as dependant claims therefrom, the dependant claims are allowable at least for the reasons for which the parent claims and any intermediate claims are allowable. Applicant further submits that the dependant claims are allowable in light of the presence of novel and non-obvious elements contained therein that are not otherwise present in the parent claims.

Accordingly, Applicant respectfully submits that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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